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## Haematological Parameters in Pregnant Women Attended Antenatal Care at Sabratha Teaching Hospital in Northwest, Libya

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**To cite this article:**

Azab Elsayed Azab, Mohamed Omar Albasha, Sara Yosef Elhemady. Haematological Parameters in Pregnant Women Attended Antenatal Care at Sabratha Teaching Hospital in Northwest, Libya. *American Journal of Laboratory Medicine*. Vol. 2, No. 4, 2017, pp. 60-68.  
 doi: 10.11648/j.ajlm.20170204.14

Received: February 18, 2017; Accepted: March 10, 2017; Published: October 23, 2017

**Abstract:** The aim of this study was to evaluate the values of hematological parameters at different trimesters of pregnancy in pregnant women who attended antenatal care at Sabratha Teaching Hospital, Northwest Libya. This cross-sectional survey included consecutive pregnant women who attended the obstetrical department in Sabratha Teaching Hospital for prenatal booking. This study was carried out over period of 6 month from April 2016 to September 2016. The study involved 120 pregnant women as the study group and 40 non-pregnant women as control. The study pregnant women were between the ages of 18 to 45 years. 5 ml of venous blood samples were taken from each pregnant woman in K<sub>2</sub>-EDTA tubes for the haematological examinations. The analysis of haematological indices was done using automated hematological analyzer. The obtained results showed that the mean age of pregnant women was 30 years ± 5.8 SD, 48.4% of pregnant women were between 21-30 years old, 40.8% were at age between 31-40 years. The most prevalent blood group in pregnant women was group O, 47.5%, followed by blood group A, 28.3%; blood group B, 17.5% and blood group AB, 6.7%. 15.8% of the pregnant women were observed to lack Rh antigen in their blood. Highly significant decrease in Hb, Hct, MCH, MCHC, lymphocytes%, RBC's and blood platelets count and significant decrease in MCV as compared with non pregnant women. On the other hand, highly significant increased in WBCs count, and neutrophils % of pregnant women compared with non pregnant women. A progressive decline in Hb concentration and haematocte values from the first to third trimester was observed. The mean corpuscular volume was significantly decreased in the second trimester. The values of MCH showed highly significant decrease in the second and third trimester, and MCHC decreased significantly in the first trimester. WBC count and neutrophils % showed highly significant increase from the first to the third trimester. Lymphocytes % were highly significant decreased from the first to the third trimester. Mixed percentage of leukocytes (eosinophil, basophil and monocytes) decreased significantly in the third trimester. Platelets count exhibited a highly significant decrease in the second and third trimesters, and a significantly decrease in the first trimester. It can be concluded that a significant changes in the haematological parameters at different trimesters of pregnancy in pregnant women. So it is essential to monitor and manage these parameters during pregnancy.

**Keywords:** Haematological Changes, Pregnant Women, Trimesters of Pregnancy, Blood Groups

### 1. Introduction

Pregnancy is the time during which one or more offspring develops inside a woman's womb. In a pregnancy, there can be multiple gestations, as in the case

of twins or triplets. Childbirth usually occurs approximately 38 weeks after conception. In case of women who have a menstrual cycle length of 4 weeks, this is approximately 40 weeks from the last normal menstrual [1]. Pregnancy is influenced by many factors, some of

4) Direct breastfeeding can be given. Mother should wash hands frequently including before breastfeeding and wear mask.  
 5) If not feasible due to maternal or neonatal condition, expressed breast milk can be fed by health care worker who is taking care of the baby.  
 6) If safe avoid oral rehydration salts.

References

Original Article  
 Estimation of Day-Specific Probabilities of Conception during Natural Cycle in Women from Babylon

Author(s): Dr. Samiha A. Al-Shabani\*, Prof. Dr. Basma A. Al-Shabani

Background: Identifying predictors of the probability of conception related to the timing and frequency of sexual intercourse is important for couples planning pregnancy. The aim of this study is to estimate the date in which the most likely day of conception occurred in women attending antenatal care at Sabratha Teaching Hospital.

Materials and Methods: This study is a prospective cohort study, with women reporting 1 week of their menstrual cycle. Data collection was performed on a monthly basis for 1 year following the measured mean and standard deviation of 10 weeks. A 12-month calendar was used to calculate the day of ovulation and the day of conception.

Results: The distribution of conception showed a sharp peak at Day 14 of the cycle, reaching its maximum at 13 and minimum at 15. The mean day of conception was Day 14.2. The mean day of ovulation was Day 13.2. There was no significant difference between the day of ovulation and the day of conception. The mean day of conception was Day 14.2. The mean day of ovulation was Day 13.2. There was no significant difference between the day of ovulation and the day of conception.

Conclusion: Day specific of conception can be affected by factors such as age, BMI, and type of fertility. This may help in timing of ovulation.

Keywords: Last Menstrual Cycle, Conception Date, Probability of Conception, Day Specific of Conception

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Keywords: Last Menstrual Cycle, Conception Date, Probability of Conception

- Volumen sanguíneo: 96 ml x kg. En embarazo único normal.
- Aumento de masa eritrocitaria
- Reducción de hemoglobina-anemia dilucional.
- Disminución de la resistencia vascular.
- T. Ritmo.-extrasístoles ventriculares así como un soplo funcional y refuerzo del segundo ruido
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